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ABSTRACT

The project surveyed former disadvantaged adult students of the Urban Educational Center (UEC) to determine their improvement economically and attitudinally and related these improvements to specific aspects of the UEC educational program. Improvement (as measured against a pretest) was surveyed in the following areas: attitude toward own ability, attitude toward education, housing status, employment status, job level, job satisfaction, salary, and subsequent educational attainment. Improvement in at least one area was indicated by 87 percent of the respondents, in one or two areas by 64 percent, and in three to six areas by 23 percent. The students' responses to the value of several educational variables were correlated with the students' improvements. The variables were: number and nature of courses completed, counseling, and instructional approach. The results of the correlation indicated that: counseling is of great importance; completion of at least three courses (including some skills courses) is important for economic improvement; academic courses are not related to short-term economic or attitudinal improvement; and a nontraditional course structure is less important than the personality of the teacher. The document includes several tables interpreting the acquired data, background on UEC and its students, and a summary of the study's findings and recommendations. (PR)

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RELATIONSHIPS BETWEEN

INPUT AND OUTPUT VARIABLES

IN PROGRAMS FOR

EDUCATIONALLY DISADVANTAGED ADULTS

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THE IMPACT
of
NON-TRADITIONAL EDUCATIONAL SERVICES
upon
LEARNERS HAVING SPECIAL EDUCATIONAL REQUIREMENTS

A Follow-up Study of
Urban Educational Center Students

FALL 1974

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Audrey Thompson

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I.A. PROJECT PURPOSE

The impact of education has become a critical issue in post secondary education. The Carnegie Commission on Higher Education stresses in its 1973 Final Report that as resources for education become increasingly scarce, educators will have to improve the quality of their existing services rather than expand into additional programs. The pressure for accountability in higher education creates a need to study the effectiveness of various approaches to education, to determine whether changes in programs and approaches - given current resources - could increase the benefits derived by students and eventually by society.

Most critically affected are those learner groups who must usually depend upon public support to acquire education rather than freely purchase any level of education desired - low-income, racial/ethnic minority groups, and adult dropouts. Given the limited number of opportunities available to these groups, it is important that available programs really help improve their welfare. Yet programs designed to serve the 'disadvantaged' are largely operated with minimal understanding of the programs' effectiveness or impact.

A major goal of publicly-supported education for the educationally disadvantaged is to equalize their chances of attaining economic success and personal well-being. It is therefore useful to attempt to isolate which educational services and approaches are most likely to generate client improvements. A follow-up study of economic and attitudinal changes in former students, relative to the types of educational services received, is an appropriate method of analyzing impact.

Because they are educationally disadvantaged adults who have received a variety of educational services, Urban Educational Center (UEC) former students constitute a good study group. Understandably, not all programs/agencies servic

ing educationally disadvantaged adults will be able to apply all study conclusions to their operations. But it is reasonable to assume that any agency/program with similar goals will regard some of the research findings as relevant.

I.B. RELEVANT INSTITUTIONAL BACKGROUND OF URBAN EDUCATIONAL CENTER

UEC's diversity in services, approach and clientele enables broad application of research findings.

Established in 1968 by the Board of Trustees of State Colleges, the Urban Educational Center of Rhode Island promotes equal opportunity through helping disadvantaged adults develop the attitudes and academic background which will enable acquisition of post secondary education or college degrees. Guided by a community-based Advisory Board (two-thirds of which are minorities), the Center has for the past six years served as a port-of-entry into post secondary education and careers.

B.1. Courses at the Center encompass a wide range of levels and content; from secondary through college credit, from hobby through college mathematics. High School Equivalency Preparation (G.E.D.) classes constitute the bulk of UEC's secondary level instruction. Intermediate level courses include Pre-College Biology, Pre-College Chemistry, Pre-College Math, and Pre-College English. Also included in intermediate level courses are skills courses such as Reading & Study Skills, Bookkeeping and Accounting, Speedwriting, and Basic Conversational Language (Spanish, Portuguese, etc.). College credit courses are in Introductory level Speech, Anthropology, and Mathematics; and in both introductory and intermediate level Psychology and Sociology. Hobby or Self-Enrichment courses are offered in Photography, Ceramics, Sewing, Drawing, etc. Several community problem/issue courses are usually offered each year, such as Consumerism, Black History, and Leadership.

The Urban Educational Center is also an official General Educational Development (High School Equivalency) testing center for the state of Rhode Island. During 1974, 1269 individuals tested at the Center.

Counseling services cover the areas of financial aid, transfer to post secondary educational institutions, personal problems, career decisions, and curriculum choice.

B.2. The Educational approach of UEC is also broad enough to permit comparison to other programs and agencies. While it is in most respects a non-traditional educational agency, the Center has enough traditional aspects to enable some analysis of the impact of either non-traditional or traditional approaches to education. The setting, program design and admissions policies are non-traditional; but some courses are taught in a structured, traditional manner. In addition, many of the policies concerning college-credit courses are rather traditional. Because Rhode Island College authorizes the college credits, RIC must approve the instructors of college courses, apply the same withdrawal/incomplete regulations, and require the same amount of classroom hours as obtain at Rhode Island College.

UEC's setting and non-college course policies are non-traditional, however. The setting is a community one, the main UEC facility being in a low-income neighborhood in the central city. UEC satellites are not in schools or similar institutional settings but in neighborhood social clubs and community centers (e.g., Cape Verdean Progressive Club, John Hope Settlement House, and East Side Senior Citizens Center).

Curriculum is based upon client surveys prior to each semester; courses are not run unless a sizeable number of clients indicate interest, and any (non-college course may be created if ten or more clients desire it. Courses may begin at any time during the semester, and courses (except college-credit) can be structured for any time span - from five-week workshops to regular 15-week sessions.

The only academic admission requirement is having a high school diploma or certificate for college credit course enrollment. In addition, only persons who cannot gain admissions to a regular post secondary educational program or institution because of income or educational deficiencies, are permitted to take courses at the Center.

Another non-traditional aspect of the Center is its faculty. Except for the college courses, criteria for selection of instructors is relevant life/work experience and ability to relate to UEC clientele, rather than academic degrees per se. UEC instructors on the whole reflect the Center's policies by avoiding the formal teacher/student attitude in favor of a highly personal one.

B.3. The faculty's ability to relate to UEC students is stressed because the majority of UEC clients are disadvantaged in some way. Thirty-three percent are Black, another 12% are non-Black minorities (Spanish, Portuguese, etc.), one-quarter to one-third are unemployed, one-quarter are high school dropouts (excluding those taking H.SE. tests), and 20% are receiving Public Assistance.

As well as having educational deficiencies, the majority of UEC clients have considerable negative attitudes towards education and their own capabilities. Since the average age is 30 years old, these attitudes are understandable. Many UEC clients haven't been to school in over a decade.

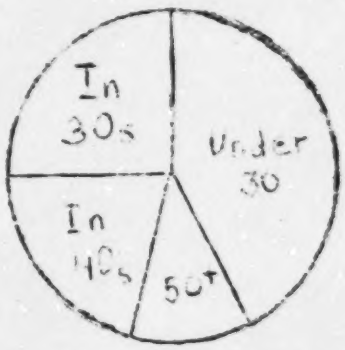
II. RESEARCH DATA OBTAINED

A. Characteristics of the Sample

Partly because the survey sample included students who attended UEC before socio/economic client data was collected, the characteristics of the sample differ somewhat from the proportions cited above. It should be noted, however, that the above figures were provided only to show in a general sense, how study findings could be applied to other agencies and programs servicing similar

clientele.

The racial composition of the sample* was 29% Black 8% non-Black minority; and three-quarters were female (latter figure currently obtains). Thirty-one percent of individuals responding had families with one or two non-workers; another 19% with 3-4 dependents. (The non-worker measure was used to avoid terming a working wife a dependent). The age distribution is illustrated below:



*AGE DISTRIBUTION OF THE SAMPLE**

Probably because of the large proportion of women, only 13 persons had been in the military at some time; 78% had never been in the military. As expected, incomes were quite low. Nearly 70% had annual incomes under $7000 when they first enrolled at UEC; 15% of those working earned less than $3000/year. Noone earned $13,000 or more, and only 2 persons earned between $11,000 and $12,000/year. Since all employed persons in the sample reported their income, these figures accurately portray the sample.

Public Assistance recipients constituted 10% of the sample. Twenty-six percent were unemployed when they began at UEC. Of those employed, one-fifth had lower-level jobs such as factory operatives. Another third had semi-professional occupations such as nurses' aides and administrative assistants. Most of the 12% professional level workers were registered nurses, counselors, or lower level administrators. Housing status involved mainly renting in private housing or living with parents. Thirteen percent lived in Public Housing at the time of enrollment in the Center.

N-103, (Sampling & return rates described in Section IV.)

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Initial attitudes towards education, own abilities, and job* were quite negative among persons sampled. On the following list, 67% of all 103 individuals responding to the survey, checked one or two items; another 7% checked 3-6 items:

"How would you describe your attitudes towards education when you began at UEC? Please check all that apply:

__ Not worth all the hard work
__ The schoolwork was often too difficult
__ You had been out of school too long and felt uneasy about going back to school
__ Getting a better education wouldn't help much in getting a job, a raise or a better-paid job
__ Education was pretty irrelevant to the important concerns and activities of your daily life
__ Education could be a good thing, but the way school usually is, it's boring and confining

Ability concept was also low. When asked how difficult they anticipated UEC courses would be, 30% responded "they would be difficult"; and over 94% checked the latter statement of "they would be about average". Only six persons felt UEC courses "would be easy".

A widespread dissatisfaction with initial* job showed in responses to check-list covering salary, opportunity for advancement, challenge of work, general satisfaction with job, and boss/coworkers. Fifty-eight percent of those employed responded positively to three or fewer of the five statements. Nearly one-third gave only one positive response.

Despite negative attitudes towards education, own abilities, and initial* job; in general the sample clients showed fairly strong self-concepts. Over 60% responded 'yes' to all four of a series of positive self-assessment statements.

The self-concept question included areas such as ability to cope with the system and willingness to work hard. Thirteen percent felt only one of the positive statements described him/herself.

* Job held when first enrolled in UEC

II.B. Relationships Between Client Chrracteristics and Improvements

B.1. Success Definitions

Given the diversity of backgrounds and abilities among clientele of UEC and similar agencies, analysis of their "success" cannot be based upon achievement of some arbitrary socio-economic or educational level. Rather, improvements, or changes from their initial condition to a better condition would more realistically indicate the degree to which they were successful.

The concept of success used here encompasses a variety of economic and attitudinal measures of improvements. Client improvements were measured by the following method. The questionnaire was divided into three sections - the client's condition upon entry into the Center, the services received during the client's contact with UEC, and finally the client's condition at the point of being surveyed (September 1974).

Changes from the client's initial condition, to his/her conrent condition can therefore show improvement (or decline). The following areas were used as indicators of client success. Each will be defined below.

Attitude towards own ability
Attitude towards education
Housing status
Employment status
Job Level
Job Satisfaction
Salary
Subsequent Educational Attainment

Attitude towards own ability: The student surveyed was asked how difficult he/she anticipated UEC courses would be at the point of enrolling into UEC. Later in the questionnaire, he/she was asked about his/her performance in UEC course work - one response possible, for example was "I did well without much effort".

The difference between anticipated and actual difficulty with coursework was taken to be an indicator of changes in ability concept.

Attitude towards education: Because clientele such as those serviced by UEC are known to have substantial negative attitudes towards education, the focus here was the extent of these negative attitudes. Clients surveyed were asked to check any items on a list which described their attitude towards education in general when they first began at UEC; and in the last section "After You Left UEC", the same question was provided. Any reduction in the total number of items checked per individual was considered an improved attitude towards education. (The checklist is on page 6 of this report).

Housing Status: The questionnaire asked what type of housing the client lived in upon enrolling into UEC, and later in the questionnaire the same question was asked about the client's current housing situation. The options follow:

__ Rented private housing, apartment
__ Rented in Public Housing
__ Owned my own home
__ Lived with parents, grandparents

For analytical purposes the housing items were ranked from 'high status' to 'low status' in the following manner: Highest - own home. Next highest - rent private housing. Two lowest, nearly equal - lived with parents and (lowest) rent in Public housing. Thus, an improvement in housing would occur when an individual initially lived with parents and currently owns his/her own home, for example.

Employment Status: To enable a more sensitive measure of changes in employment status, a variety of options were provided:

__ Employed full-time __ Employed part-time
__ Unemployed and looking for a job __ Unemployed but not looking for work
__ Not working because in training/educational program

A person unemployed/in school could be deemed 'better off', therefore, than a person unemployed/looking. From an economic standpoint, improvements in employ-

ment status included the following changes: 1) unemployed/looking to employed full-time or part-time or unemployed/inschool; and 2) employed part-time to employed full-time.

Job Level: Largely based upon U.S.Department of Labor classifications, respondents jobs were categorized, using salary in the determination where necessary. The categories are listed below:

no answer
not working
other, not classifiable
Service (waitress, chambermaid, service station attendant, etc.)
Assembly, factory operative
Secretarial, clerical
Semi-Professional (para-professional, administrative assistant, aides, LPN, technicians, etc)
Crafts - electrician, plumber, carpenter, troubleshooter
Professional, Management (R.N., program director, professional counselor, supervisor, etc.)

The order in which the list appears is the ranking system used in analysis. Classification into these categories did not involve much difficulty. For on the whole, respondents held jobs in a few occupational areas. A large number were clerical workers, and another large group were clearly semi-professional. in addition, the anticipated problem with placing 'crafts' in a lower status than 'professional', did not become a serious issue because none of the four persons who fell in the 'crafts' category, moved into the 'professional' category later.

Given that the ranking was of necessity somewhat arbitrary, a change from a lower category to a higher one (before and after UEC) was considered an improvement in job level.

It should be added that the reason this measure was used, is the common feeling that, along with higher salaries, a 'nicer' or 'better' job is an important achievement to most people.

Job Satisfaction: The questionnaire provided a checklist to describe client satisfaction with the job held upon entry into UEC, and the same checklist to describ current job satisfaction. Since noone will probably ever agree what the most

important aspect is about a job, improvements simply meant more "yes" responses to current job, on the following checklist:

Work duties are challenging, rewarding
Good pay or wage
Good opportunities for promotion
Satisfied with boss, co-workers
Generally satisfied with job as a whole

Salary: Former students were asked their annual salary or wage for the job they had when first starting at UEC, and their current wage/salary. All employed persons responded to the questions, which set $1000 ranges starting at 'under $3000', to $3001-$4000,...$13,001-14,000 and 'over $14,000.' Salary rather than family income was used in order to be able to isolate the influience upon the student of educational program participation. Were family income used, there would be no way of knowing whether increases were due to the student's spouse or due to the student's own salary increases.

II.B.2. Client Improvements

Improvements among former Urban Educational Center students may be described both in the aggregate and in each 'economic/attitudinal' area.

Clearly the large majority improved in some way. Eighty-seven percent of all 103 respondents registered improvement in at least one area. Sixty-six persons (64%) registered one or two improvements; 24 persons improved anywhere from 3 to 6 ways each.

The proportion of sample clients who improved in a particular area varied with the area in question. In the economic status group, 51% of the employed responsents had salary increases up to $3000. Another 18% had salary increases from $4000 to $8000. Persons who were initially not earning a salary were not included, in order to avoid biasing the improvement measure.

Job levels improved for one-fifth of the sample who had jobs. Satisfaction with job increased for 30% of those employed. Twelve percent of all 103 individuals registered improvements in employment status. (It should be noted here that immediate job placement, without education or training, is not a policy of UEC. Many students enroll in a college degree program after leaving UEC). Fourteen persons improved their housing status; seven of these improved substantially, from "Public Housing" to "own home".

Client attitudes also improved substantially. Of all 103 persons, 51% gained confidence in their ability; only three persons showed less confidence after attending UEC. Forty-six percent of the 103 respondents lost at least one negative attitude towards education; over 7% lost three or more negative attitudes.

The improvements described above were measured more or less objectively - comparing initial condition to current condition. An additional more subjective method of determining impact was provided for in the questionnaire by asking respondents to check from a list the way(s) UEC helped them, if any.

To the eight possible items were given a total of 243 checks; or an average of over two "ways UEC helped" per person. These comments supported the research assumption that client improvements were to some extent due to participation in UEC programs. Some checklist items covered attitude-related improvements such as increased self-confidence, improved attitudes towards education, and better "coping" ability 9i.e., to learn to understand and get along better in my everyday life, job and/or home"). These elicited 121 responses; 48 of which were for increased self-confidence, Career-related "ways it helped" elicited 83 responses. Career statements included obtaining a job, training/education, promotion or raise; and improveing job performance. Only seven persons of the 103 responded "didn't help much" to the list provided.

Summary: The table below summarizes the ways in which Urban Educational Center students improved.

CLIENT SUBSEQUENT SUCCESS

Attitudinal/Economic Area	Percent of Total Who Improved in that Area	
Attitude Towards Education: Lost 1 or more negative attitudes		46 %
Confidence in Own ability		51 %
*Salary: Increase up to $3000	51 %	69 %
Increase $4000-$8000	18 %	
*Job Level		20 %
*Job Satisfaction		30 %
Employment Status		12 %
Housing Status		15 %
**(Subsequent Educational Status)		30 %
TOTAL Improvements/Individual: 1-2 ways	66 persons	90 persons
3-6 ways	24 persons	

*Percent of total employed before and after attending UEC
**Not included in Total Improvements Measure. Counts only those who enrolled in a post secondary educational program/institution after leaving UEC.

It is interesting to note that the improvement data above understates clients' perception of how UEC helped them. (e.g., only 6 of all 103 respondents stated they felt UEC "didn't help much"; while the Total Improvements/Individual measure implies that 13 persons did not improve). Of course no study can prove cause-effect relationships, whether it is a medical, educational or psychological study. Statistical analysis of data can only show the existence of relationships from which the reader may form his/her own conclusions.

II.B.3. Influience of Client Characteristics

Because initial attitudes influience the outcome of attempts to change those attitudes, it is worthwhile to investigate whether or not the attitudes under discussion differ among sex, age and racial groups.

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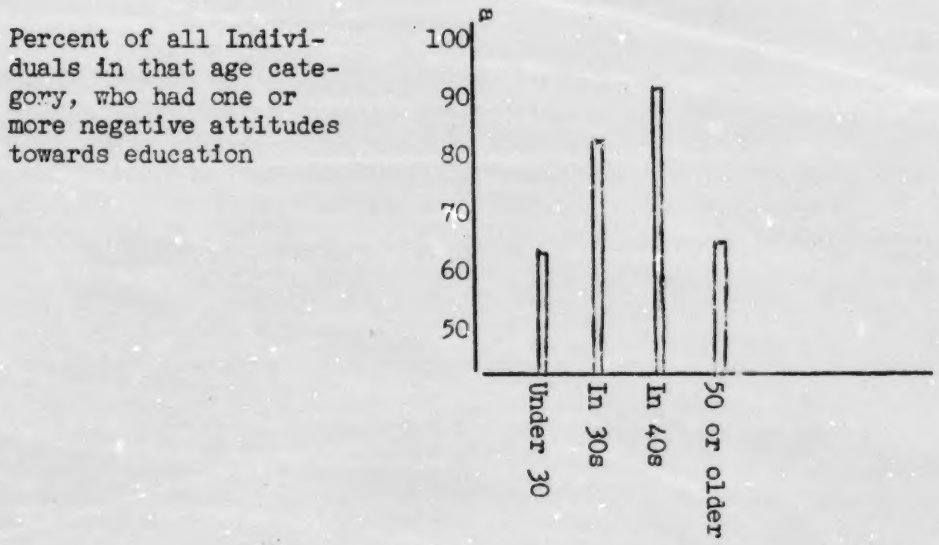
The degree to which persons held negative attitudes towards educaton, upon enrollment into UEC, varied only by the age characteristic; there was little difference when sex or race was categorized male/female and Black/White respectively.

As shown in the chart below, middle aged persons tended to feel more negatively towards education, than did younger or older psersns.

INITIAL NEGATIVE ATTITUDES
TOWARDS EDUCATION, by AGE



Initial self-concepts were somewhat lower for women and Blacks, but the difference was notable only when respondents were categorized by age groups. Persons 50 years of age or older checked 3-4 "yes" in the four-item self-assessment positive statements; much less frequently than did younger persons. Fifty-three percent of all sample individuals 50 years of age or older (3-4 'yes'), compared to 77%, 70% and 78% of all individuals under 30, in 30s and in 40s, respectively.

In the related area of ability concept, older persons again showed less con-

fidence, though the difference appeared at the '40 or older' level rather than at the '50 or older' level. Noone over 40 felt courses would be easy; the table below shows distributions among the age groups of low ability assessment:

INITIAL ABILITY CONCEPT and AGE of RESPONDENT

Age Group	Percent of all Individuals in this Age Group Who Felt UEC Courses Would Be Difficult
Under 30	30 %
In 30s	30 %
In 40s	50 %
50 or more	60 %

There was a statistically significant relationship between sex and ability concept. (Chi Square significant at .05 level). Nearly half of all women anticipated course difficulty; only 16% of the men did.

Confidence in one's own ability is an important factor in achieving success. Therefore it is of interest to determine whether the substantially lower confidence among women and older persons cited above, implies they will retain feelings of inadequacy and thus remain relatively unsuccessful. In other words, can their self-confidence improve enough so that attinment of equality is feasible. The data indicates that substantial equalizing changes in ability concept among sub-groups of the clientele can occur. As the table below shows, the groups who began with lower ability concepts, also registered relatively larger improvements. (Large percentage differences are underlined).

IMPROVEMENT IN ABILITY CONCEPT,
By SEX, AGE, and RACE

	Large Improvement	All Improvements
AGE:		
Under 30 years old	10 %	51 %
In 30s or 40s	5 %	47 %
50 or Older	38 %	69 %
SEX:		
Female	14 %	58 %
Male	4 %	29 %
RACE:		
White	10 %	48 %
Black	17 %	63 %

Percents are proportion within that category of age, sex or race

Summary: The table below describes the relationships of sex, race and age groups to initial ability concept and negative attitudes towards education.

ATTITUDES vs. CLIENT AGE, SEX, & RACE

	Initial negative Attitudes Towards Education	Initial Self-Concept	Initial Ability Concept	IMPROVEMENT in Ability Concept
AGE	In 30s & 40s, more negative	50+ much lower	40+ lower	50 or older, much more improvement
SEX	--	Women slightly lower	Women significantly lower	Women much more at high and at total improvement levels
RACE	---	Blacks slightly lower	Blacks slightly lower	Blacks improve considerably more, at high & total levels

II.C. Relation of Input Variables (Services) to Clients' Subsequent Success

The primary research goal is to discover relationships between input and output variables so that educators will be provided with data upon which they can make better judgments as to the relative effectiveness of various educatonal services.

C.1. Input Variables Choice: The three criteria for input variable choice were: 1) probable applicability to other programs/agencies, (2) the range previously and currently available to UEC clients, and (3) the extent to which individuals in the sample were involved with the service(s).

Based upon these criteria, data was sought on the relationship between client success and the three broad input areas of courses, counseling, and instructional approach. Course input variables includedthe number of courses completed as well as the following types of courses: academic, skills, physical science, community problem/issue courses, and craft/hobby courses. Counseling variables included counseling in the areas of: curriculum, transfer to post secondary educational institutions, financial aid, and assistance with personal problems. The instructional approach variable was defined as the client's perception of the degree to which he/she felt courses taken at UEC had a non-traditional structure. (A definition of traditional, 'mixture', and non-traditional was provided on the questionnaire).

C.2. Input Variables Analyzed: While data on all input variables described above was processed, some variables did not meet the third criteria - sufficient involvement by sample clients with the service. For the following course input variables, the data was not ample enough to permit comparison to output variables: craft/hobby physical science, and community problem/issue courses.

Due to the informal structure of UEC,where typically, students come one or two evenings per week for a class, the quantity of counseling received by sample

clients did not permit breakdown by type of counseling. Therefore the variable analyzed with respect to client improvements was simply amount of counseling received.*

Consistent classification of course input variables into academic versus skills categories was accomplished by having a single person using student file information** and using the following definitions. Academic courses are defined as those covering subjects in a discipline or field, which are typically offered in a college liberal arts program. (e.g., History, English Literature, Anthropology Sociology, and Psychology). Skills courses are defined as those in which students learn a particular skill or set of skills which are usually used on the job (as opposed to hobby courses, which teach skills generally used in leisure time for pleasure.) Examples of skills courses are: Bookkeeping, Speedwriting, English Composition, Speech, Reading & Study Skills, Grammar & Vocabulary, and Basic Conversational Language (Spanish or Portuguese).

C.3. Method of Analysis: Relationships between client improvements and input variables were analyzed by comparing percentages between the two variables, and by using the Chi Square test of significance. The Chi Square test is a very general statistical measure that can evaluate the likelihood that relationships observed in the sample do exist in the entire population from which the sample was drawn. The Chi Square test can only be used, however, for tables in which every number (cell frequency) is 5 or larger. In many instances the tables generated by study data contained a few cells with frequencies under 5. Though frequently applicable, the solution of further collapsing categories within a particular variable was

*Category analysis of the type of counseling received showed concentration in curriculum, job, and transfer counseling.

**A check of 1/4 of the sample files against the respective sample questionnaires showed that file data slightly understated the number of courses actually taken for about one-fifth of the total sample (assuming clients correctly recalled th number of courses they took at UEC).

sometimes not a viable solution because further collapsing of categories would have rendered the analysis relatively useless (e.g., to reduce categories within the the variable "number of courses", to 'completed no courses' and 'completed some courses', would not provide very useful observations, even though this reduction might result in a matrix of numbers large enough to permit application of the Chi Square test).

While discussing the input variables' relation to each output variable, the terms "significantly related" or significantly correlated" will mean that application of Chi Square showed the relationship between the two factors was significant at the 0.05 level of significance.

For input and output variable comparisons which result in only minimal percentage differences, usually no discussion will be made. It should be kept in mind, however, that each input variable was analyzed with respect to each output variable. Therefore, a result of 'no relation' between two given variables can mean that a combination of input variables rather than a single input variable, is apt to be related to the given output variable.

While interpreting the percentages given in the next section, it is important to consider what those percents represent. If the success area in question is salary, job level or job satisfaction; percents refer only to those persons in the sample who were employed (part- or full-time) both upon entry into UEC and at the point of being surveyed. An additional note - summation of percents given for each category within a variable will not equal the percent relevant to the total sample. For example, adding the percent of persons who received counseling and improved salary, to the percent of persons who didn't receive counseling and improved salary; will not equal the percent of total persons in the sample who improved their salary. The categorization causes "weighted" averages which must be readjusted before using them as a proportion of the total sample.

II.C.4. RELATION OF INPUT TO OUTPUT VARIABLES

The economic/occupational group of success measures will be discussed first. This analysis will cover the four areas: Salary, Job Level, Job Satisfaction, and Employment Status (Refer to II.B.1. for definitions). Possible interpretations of relationships observed will be made along with presentation of data.

Salary: Improvements in salary for clients is related to two factors - the amount of counseling received, and the number of courses completed.

There is a statistically significant correlation between counseling and salary increase. Sample clients who received some counseling were more likely to achieve salary increases over time*, than those who received no counseling. If the disadvantaged adults who are serviced by UEC are representative of other programs' clients, then one can predict increased economic success (salary increase) is more likely to be attained if the client receives counseling.

One interpretation of the observed relation between counseling and salary increase is that counseling can improve attitudes such as motivation and self-confidence, which could improve job performance. The increased motivation or effort on the job might well result in raises or promotions. Counseling could also help by clarifying goals, developing acceptance of the need for effort in achieving those goals; as well as knowing which skills/knowledge are needed to obtain job advancement.

The number of courses completed is also related to salary increases. Clients who complete four or more courses register substantially greater salary increases

*From point of entry into UEC to the point of being surveyed.

than clients who take less than four courses. The type of course taken (Skills vs. Academic) however, is not in itself related to salary increase. When Skills courses are related to salary increases; and when academic courses are related to salary increases; there are only minimal differences.

The finding that neither skills nor academic courses is related to salary increases for sample clients as a whole is not an unexpected finding. Given the variety of jobs and qualifications relevant to those jobs, it is logical that in a random group of employed persons, academic courses will be relevant to some of their jobs while skills courses will be relevant to jobs of other persons. Completion of several "academic" courses, for example, would probably help an individual employed as a counselor obtain raises (eg. Psychology, Sociology). For a secretary, however, skills courses such as Bookkeeping would more likely lead to raises than would a course in Anthropology.

The following tables present data showing the extent to which study data showed salary to be related to the input variables, number courses completed and amount of counseling received.

NUMBER of COURSES and SALARY

# Courses Completed	Percent of Total in That Category Whose Salary Increased	Percent of total in that Category Whose Salary Increased by $4000 or more
0 - 1	58 %	15 %
2 - 3	79 %	14 %
4 or more	83 %	50 %

COUNSELING and SALARY

	Percent of Total in that Group Whose Salary Increased
Received No Counseling	57 %
Received Counseling	83 %

Job Level: Improvements in job/occupational level is related only to the number of Skills courses taken. The relation is however, rather slight. Sixteen percent of all persons who took no Skills courses, improved in job level. Of those who had some Skills courses, 27% had job level improvements. It should be noted that an increase in job level as defined here is a substantial upward movement - for example a secretary could receive raises over a period of years totaling several thousand dollars (increase in salary and likely in job satisfaction), but remain a secretary (no change job level).

A plausible interpretation of skills courses being related to job level increases, is that a set of job-related skills (Speedwriting & Bookkeeping, for example) may be enough to move a lower level worker into a a higher job category - for example, a service worker to a secretarial worker. There are a large number of jobs for which only a few basic skills are needed. On the other hand, there aren't many jobs which require a few academic courses for employment (more likely they would require an academic degree such as Associates or Bachelors Degree). Therefore if job level increase is related to any type of courses, it will probably be related to Skills courses.

A similar argument can explain why counseling is not, and Skills courses is, related to upward occupational movement. Counseling can provide the motivation to strive for a higher status job, but opportunities for attitude-based upward movement are limited, relative to skill-based promotional opportunities.

Job Satisfaction: Job satisfaction is related to three of the input variable amount of counseling received, number of courses and number of skills courses completed.

A substantially higher proportion of clients who receive some counseling, show increased job satisfaction (same job or new job). Between the number of courses completed and job satisfaction there is a statistically significant correlation; persons completing at least two courses show significantly greater improvement in job satisfaction, than persons with only Incompletes or one course completed.

Within the types of courses, however, only skills courses are (mildly) related to job satisfaction. Of all persons taking no skills courses, 26% improved in job satisfaction. Thirty-eight percent of those completing some skills courses however, showed increased job satisfaction.

The extent to which study data showed counseling and number of courses completed to be related to job satisfaction is shown below.

JOB SATISFACTION and COUNSELING

	Percent of Total in that Category Whose Job Satisfaction Increased
Received no Counseling	17 %
Received Counseling	44 %

JOB SATISFACTION and NUMBER COURSES

Number of Courses Completed	Percent of Total in that Category Whose Job Satisfaction Increased
0 - 1	16 %
2 or more	50 %

Employment Status: The only input factor related to employment status is counseling; the two variables are significantly correlated. Persons receiving counseling will be more likely to improve their employment status, than those receiving no counseling. One-quarter of those who received counseling improved their employment status, but only 12% of those receiving no counseling improved in employment status.

It is useful to note here that change in employment status does not simply mean unemployed persons obtaining a job. As defined earlier, an improvement in employment status covers the following changes: unemployed/looking to employed full time, to employed part-time, and to unemployed/inschool. It also includes employed part-time to employed full-time changes. Therefore, the improvement in employment status measure discussed here is a fuller concept; it applies to more individuals and more situations than if used in the typical sense.

The study data indicates that providers for disadvantaged adults can improve their clients' chances for future economic success by ensuring that the clients complete at least several courses, complete some skills courses, and especially that their clients obtain counseling.

Attitudinal Improvements: The data indicates that only one of the input variables is related to client attitudinal improvement. However, overall improvement data shows considerable attitudinal improvements. Therefore, it is reasonable to infer that client attitudes are probably related to a combination of input variables.

Improvements in attitudes towards education is unrelated to any particular input variable. The other attitudinal factor however, ability concept, is related to one input factor - the amount of counseling received. There is a statistically significant correlation between counseling and improved concept of ability. Only 38% of those not obtaining counseling, registered improvements in ability concept.

On the other hand, 70% of those who received counseling showed improved ability concept.

One possible reason counseling is related to ability concept of these clients may be that their low ability concept resulted partly from inadequate concern or attention of high school teachers, guidance counselors, and/or parents. When they' do receive the badly-needed support (at UEC) for their educational endeavors, these clients can be very responsive to it.

The final measure of success, subsequent educational attainment, was analyzed somewhat differently from other success measures and therefore will be discussed in the following section. A summary of the relationships between input and output variables will be provided after discussion of subsequent educational attainment and personal interview information.

An aggregate approach to input-output analysis was also taken. The total number of improvements (of the 7 including housing status) per individual, was related to each input variable; to see whether persons having greater total improvements than other sample clients, received services different from the latter individuals.

Counseling was found to be the only input variable related to higher total number of improvements/individual. At the category of 3-6* improvements per individual, persons in this group received more counseling than others. Only 18% of all sample individuals receiving no counseling improved 3-6 ways each. On the other hand, of those receiving counseling, 32% improved 3-6 ways.

II.C.4.c. Subsequent Educational Attainment

Another success factor analyzed was acquisition of post secondary education beyond UEC. Acquisition of post secondary education can be considered an indication of success both in itself and in its general tendency to generate economic betterment

Sample individuals who responded to the following question by naming a school/

program, were considered to have attained educational improvement: "Since you left UEC, have you gone into a training/educational program of any kind? _____ (name of program) _____ (dates attended). With respect to this output variable, the basic hypothesis is that client attitudes as well as educational services received are related to the propensity to acquire further education.

Relationships Analyzed: Input variables analyzed with respect to subsequent educational atteinment differed from those used to analyze other improvements for several reasons. First, it was felt that attitudes would generally speaking, have more bearing upon the tendency to seek education than upon the tendency to seek a job or better job (economic improvements). One often feels compelled to seek the latter. Therefore, two additional variables were brought into the analysis - initial ability assessment and initial general self-concept.

A third new variable analyzed with respect to subsequent educational attainment, was the clients' perception of the extent to which UEC courses taken had a non-traditional structure. It must be emphasized that this variable is much more subjective than the other input variables discussed. Seeing as there is no data on the traditional/non-traditional structure of past UEC courses, this measure had to be based upon clients' response to a question such as the following one used:

"How would you describe the teaching methods used at UEC?

__Traditional - teachers lectured, students took notes and took written exams, had very structured class discussions

__Mixture of traditional and non-traditional - some formal lectures and written exams, but some individual work projects

__Mostly non-traditional - lots of free class discussion, students free to learn how they wanted to, individual projects.

The reader should keep in mind that the primary reason this variable was developed at all, is the widespread belief that a non-traditional course structure/instructional approach is more effective with students having substantial negative attitudes towards education, than is a traditional structure.

Finally, the input variables 'academic courses' and skills courses' were not included in this analysis because results would be influience more by specific admissions requirements of the schools to which clients transferred; than by the propensity to acquire further education.

Thirty-one of the 103 sample individuals indicated participation in a post-secondary educational instutution/program after leaving UEC. Information from the respective institutions could be obtained for the 16 individuals who transferred to Rhode Island College and Rhode Island Junior College.

General academic standing information on clients who transferred to R.I.C. and to R.I.J.C. will be briefly presented here. While an effort was made to find realtionships between the relative performance of these 16 persons and the services they received at UEC, the types of programs undertaken were so varied that comparisons between the 16 individuals was impossible. The 16 former UEC students enrolled in a variety of part- and full-time programs at R.I.C. and at R.I.J.C. Of the 9 full-time degree students, 8 had(have) good grade point averages.* The remaining 7 non-matriculating or part-time students tended to have lower g.p.a.$_s$*; only three among them achieving good g.p.a.$_s$.*

These 16 former students were compared as a group to the entire sample. Comparisons showed that a slightly higher proportion of the 16 received counseling, than did the sample as a whole. And relatively more RIC/RIJC transfer students assessed their UEC courses as non-traditional. With respect to the other input variables, RIC/RIJC students showed the same average characteristics as did the total group of 31 transfer students.

The 31 transfer students were compared to the <u>remaining</u> 72 sample individuals, relative to attitudes and services received. As shown in the table following, the

*From high C average or better.

initial general self-concept and the number of courses completed differed among the two groups. The amount of counseling received and the initial ability concept however, was about the same for both groups. The clients' perception of how non-traditional UEC course structure was, also was nearly equal for both groups.

SUBSEQUENT EDUCATIONAL IMPROVEMENT and
CLIENT ATTITUDES & INPUT VARIABLES

Attitude/Input Var.	Percent of All (31) Transfers	Percent of All Remaining Sample Individuals (72)
General Self-Concept:		
4 of 4 positive responses	55 %	63 %
3 of 4 positive responses	23 %	7 %
Three or more Courses Completed	47 %	23 %
Amount of Counseling Received	. . . . no difference	
Initial Ability Concept	. . . . no difference	
Clients' Perception of How Traditional UEC courses were	. . . . no difference	

Possible interpretations of the above findings will be offered.

Persons with very strong self-concepts (4 of 4) may be more likely to feel they can 'make it' without a college degree, than persons with less strong initial self-concepts. Whether or not this feeling is realistic is another matter.

Given the substantial educational deficiencies of many UEC clients, it is expected that completion of three or more courses is related to admissions into post-secondary programs/institutions. In addition, it may be that persons who begin at UEC with the intention of going on to school, will also be those that make an effort to complete several courses.

The lack of a relationship between ability concept and subsequent educational attainment supports the idea that the decision to continue educatonal activities is likely based more on the individual's perception of what a degree can do for him/her,

than whether or not he/she can actually handle the course material. The minimal relation of counseling to subsequent educational attainment can also be seen as supporting this interpretation. With or without counseling, students may arrive at a decision as to whether or not post secondary educational diplomas, certificates or degrees will be needed to achieve his/her occupational goals. Counseling may lead some students to decide against further education; and stimulate others to seek a college dgreee. In fact, counseling which is supposed tomeet individual needs would not be effective if the goal of counseling were to persuade clients to obtain a college degree.

II.C.4.d. Clients' Perceptions - Personal Interviews Information

Personal interviews were conducted with a small group of former clients, in light of the expectation that probing-type questioning in a face-to-face interview setting might elicit information beyond that elicited by the mailed questionnaire.

In order to gain insights into which input variables seemed in clients' estimation to 'work best' and which input variables did not seem to work; two types of clients were selected: persons who clearly attained success subsequent to UEC, and persons who did not seem to benefit much from UEC (i.e., who undertook numerous course but dropped or failed the majority of them). Four persons from each group, or a total of eight persons were interviewed.

On the whole, the interviews did not generate information salient to central research issues. Persons interviewed could under questioning, identify what they liked and didn't like about UEC services, but usually could not assess the relative influience of the input variables upon their subsequent success or lack of success.

It is informative however, to describe the ideas help by most of those interviewed.

In general, persons interviewed felt the UEC personalized approach to education, including a non-traditional setting with a minimum of teacher/student formality - was

more effective than a traditional approach. Opinions differed however, on the specific non-traditional approach - course structure. Successful clients felt a non-traditional course structure more effective with respect to future success, than a traditional one. But the relatively unsuccessful persons interviewed supported a more traditional course structure.

Nearly all individuals interviewed stressed that the type of teacher had substantial bearing upon what they got out of the course, upon whether or not they completed the course, and upon their performance. Qualities stressed were: willingness to give extra help, personal warmth and concern with students, and being organized and well-prepared. Although students in any type of educational institution would probably feel teachers should have thase qualities, the importance attributed to this 'personal' approach by UEC students seemed to be far greater than would be expected from a typical young White middle-class student attending a regular college. (It should be noted that those individuals interviewed who failed most courses they attempted, attributed failure to their own lack of effort and time; at the same time perceiving the teacher as the largest influience upon total benefits derived from UEC

With regard to the relationship between number of courses and probable impact upon students, the consensus was that only several courses were needed to have an impact. Opinions varied on the type of courses which contributed most to economic improvement. In general, successful clients felt basic skills courses were necessary to success, while the others felt that gaining college credits rather than course content or material learned would lead to improvements.

Most persons interviewed had obtained minimal or no counseling at UEC, and therefore could not assess its influience upon their subsequent changes. When asked how UEC or agencies like UEC could better prepare its clients for future success, however, all persons interviewed suggested UEC improve and increase counseling servic

II.D. SUMMARY OF FINDINGS

Analysis of relationships between client attitudes, client improvements, and services received has shown the three areas to be related in a variety of ways.

Clients' initial attitudes vary by sex, race and age. Improvements in ability concept also differ by sex, racial and age groups. Generally speaking, Blacks, women and middle aged or older persons show lower ability concepts, lower general self-concepts and greater improvements in ability concept; than do other groups (See Table p. 15)

Urban Fducational Center former students sampled showed substantial improvements (Table p. 12). The extent of improvements were some times numerically very close to clients' assessment of improvements in that area. (p.11). Client subsequent success - attitudinal, educational, and economic improvement - is related to several input variables: counseling, number of -courses completed, and skills courses taken.

The two outlines following, summarize the relationships observed between input and output variables from 2 viewpoints - 1) Improvements,-and the Input Variables Related to Them, and 2) Input Variables, and the Improvements Related to Them.

(Research Methodology Section furnished upon request.)

IMPROVEMENTS
The Input Variables Related to Them

SALARY:

Counseling (significantly correlated)
Number of Courses Completed (See Tables p. 20-21)

JOB LEVEL:

Number Skills Courses: 27% of persons taking some Skills courses improved job level; of those taking no Skills courses, 16% improved job level.

JOB SATISFACTION:

Counseling (Table p. 22)
Number Courses Completed (significantly correlated) (Table p. 22)
Number Skills Courses: 38% of persons taking some Skills courses showed greater job satisfaction; 26% of those taking no Skills showed improvement.

EMPLOYMENT STATUS:

Counseling (significantly correlated): 25% of persons who got counseling, improved employment status. Of those never receiving counseling, 12% improved employment status.

ATTITUDE TOWARDS EDUCATION:

Not related to any particular input variable. But substantial improvements shown by data in this area suggests that a combination of input variables are related to this improvement measure.

ABILITY CONCEPT:

Counseling (significantly correlated): 70% of those who got counseling, improved ability concept. Of those never receiving counseling, 38% improved ability concept.

TOTAL NUMBER IMPROVEMENTS PER INDIVIDUAL:

Counseling: 32% of those receiving counseling, improved 3-6 ways per person. Of those receiving no counseling, 18% improved 3-6 ways per individual.

EDUCATIONAL ATTAINMENT AFTER UEC:

Moderately Strong Initial General Self-Concept
Number Courses Completed

CLIENT PERCEPTIONS OF IMPORTANT INPUT VARIABLES:

Type of Teacher/Instructor
Personalized, Non-traditional Atmosphere & Setting

INPUT VARIABLES
The Client Improvements Related To Them

COUNSELING:

Salary (statistically significant)
Job Satisfaction
Employment Status (statistically significant)
Ability Concept (statistically significant)
Total Number Improvements/Individual

NUMBER COURSES COMPLETED:

Salary
Job Satisfaction
Educational Attainment After UEC

SKILLS COURSES:

Job Level
Job Satisfaction

ACADEMIC COURSES:

None

CLIENTS' PERCEPTION OF NON-TRADITIONAL COURSE STRUCTURE

No Relation to Subsequent Educational Attainment

III. IMPLICATIONS AND POLICY RECOMMENDATIONS

Some types of educational services (input variables) are more related to future success among learners such as serviced by UEC, than other input variables. While research cannot prove the existence of direct cause-effect relationships, data showing the input variables associated with greater client benefits can be useful in a time of scarce educational resources.

Agencies, programs, and organizations whose goal is to improve

the attitudinal and economic well-being of educationally or otherwise disadvantaged adults, can more effectively fulfill that goal by implementing the following recommendations.

1. Ensure that clients obtain counseling, no matter what the program scope and structure is.

   Suggested ways to promote counseling:
   1) have counseling a requirement of program admissions and/or program completion;
   2) have teachers and tutors urge their students to obtain counseling on an ongoing basis;
   3) promote the benefits of counseling to clients, in agency literature written for clients.

2. If agency or client goal(s) is economic improvement, ensure that clients complete at least 3 or 4 courses, and that some of those courses are Skills courses.

3. Educators should expect and convey to clients, that completion of several academic-type courses is <u>not</u> related to short-run economic and attitudinal improvement.

   Since attainment of a 2- or 4-year degree is known to be associated with economic betterment, it is recommended that providers advise clients, that obtaining academic credits will be of more value if those credits are applied towards a degree.

4. Educators should be aware that while a personalized or individualized, non-traditional overall structure and atmosphere is important from clients' perspective, a <u>course</u> structure which clients perceive as non-traditional is <u>not</u> associated with improved attitudes towards education nor greater tendencies to acquire post-secondary degrees.

   The type of teacher rather than course structure, in the view of clients such as those serviced by UEC, is the important factor. Instructors should be carefully screened, in the light of their ability to convey personal warmth and concern with students - as well as their ability to put across material.

5. Special population sub-groups:
   Programs servicing women and persons over 40 years old should be designed so that special efforts are made to overcome an ability concept which is likely to be considerably lower than ability concepts among other groups.

Programs servicing middle-aged persons, should include a capability both in program recruitment and instruction components, of overcoming a tendency to hold strongly negative attitudes towards education.
Outcome-oriented educational programs should, as they identify target learner groups; bear in mind that substantially greater attitudinal improvement can occur among Blacks, women and persons 50 years of age or older.

CONCLUSION

Continuing and Fundamental Education is a vital process in achieving the social goal of equal opportunity for all citizens. As resources for publicly-supported education become increasingly scarce, however, the need grows for improving the effectiveness of existing educational programs.

Most adversely affected by this trend are disadvantaged learner groups, who are generally not at liberty to purchase any level of education required for their career and life goals. Study of the relationships between the types of educational services received by this learner group, and their subsequent improvements, can provide educators with the data upon which they can make more informed decisions as to the educational program most beneficial to the clients they serve.